

# Belden PatchPro®

Real-time Network Security  
and Transparency with Belden's  
PatchPro® Intelligent Patching



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Your End-to-End Solution.



**Solutions for Data Centers**

The latest Patching Solution Belden PatchPro® delivers transparency and increased network security for applications that require maximum network reliability and operation uptime.

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## Table of Contents

Belden PatchPro®	Page
Real-Time Network Security and Transparency	4
How PatchPro® Works	4
Where PatchPro® Works	4
The Benefits of PatchPro®	5
<b>Belden PatchPro® Hardware</b>	
Network Manager	6
CU Panel	6
FO Panel	6
Modular Cords	6
Category 6/Category 6A	7
OFC	7
<b>Belden PatchPro® Software</b>	
PatchPro®I (Infrastructure DCIM/AIM software)	8
Comprehensive Software Toolbox	9
Component Library	9
RackView	9
Monitoring, Reporting and Analytics	9
<b>Helpful Modules</b>	
Facility Manager	10
Connecting Manager	10
InternetServer	10
RackView	11
PatchPro Manager	11
<b>Belden PatchPro® System</b>	
Ordering Table	12–16
PatchPro® Hardware	12
PatchPro® Connectivity	13–15
PatchPro® DCIM/AIM Software	16
<b>10GX Pre-Terminated Cabling System (Copper)</b>	
Pre-Term Made Easy™	18–19
PatchPro® 10GX Pre-Term RFID Intelligent 'Ready' Patching Cabling System	20
Ordering Table	21
<b>Pre-Terminated Cabling System (Fiber)</b>	
Pre-Term Made Easy™	22–23



Belden Solutions:  
Faster, Easier, Better.

## Belden PatchPro®

### Real-Time Network Security and Transparency

Communication – the exchange of data and information – is one of today's most powerful economic factors, and can make or break an organization. Demand for bandwidth and reliable service is continuing to increase, along with requirements for better IT security.

According to analyst Gartner, nearly one-third of data center service outages are due to cabling or connectivity errors. To maintain guaranteed business continuity, accurate documentation of all IT assets – from the planning phase to day-to-day operations – is essential.

To meet growing data center requirements, Belden introduces a hardware and software portfolio for networks that call for high security, maximum reliability and constant uptime: the Belden PatchPro® Intelligent Patching Solution.

Building on state-of-the-art technology, PatchPro® patching products can be combined to provide a complete, cost-effective intelligent patching solution that ensures increased network security, reliability and uptime.

### How PatchPro® Works

Belden PatchPro® offers a complete intelligent ready physical layer management system that uses RFID (radio frequency identification) technology for wireless identification of individual patch cords and real-time monitoring of unintended physical changes in network infrastructure.

Smart patch cords are equipped with an RFID chip containing idiosyncratic identification information (name, standard, manufacturer, etc.), which is recognized by the panel and automatically fed into the software for seamless real-time database documentation. The RFID technology does not alter data center density or affect patch cord flexibility or reliability.

Network infrastructure changes are automatically detected and transmitted to the software platform, facilitating immediate action. Network managers also receive email and/or text alerts about unwanted changes.

At the rack level, unwanted changes are signaled in three ways:

1. By a red light on top of the rack
2. As clear text in the Belden PatchPro® Network Manager display
3. With LED signaling at the patch-panel level

### Where PatchPro® Works

PatchPro® is a key component of full-distribution network management systems in organizations that require reliability and operational uptime:

- Airports
- Data centers
- Educational campuses
- Financial institutions
- Government agencies
- Healthcare organizations



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### The Benefits of PatchPro®

The easy-to-use, three-way, real-time signaling system significantly reduces downtime and the amount of time needed to correct unwanted changes. Being able to identify and address unwanted changes

immediately offers network managers a greater level of security, as well as significant cost reductions by knowing what requires immediate attention due to failure.

Automated database documentation, available through real-time mapping of the physical layer, saves time and cuts down on maintenance costs.



## Belden PatchPro® Hardware

### Network Manager

Serving as the communication bridge between Belden PatchPro® Panels and the management console, the Network Manager features an embedded display that supplies information from up to 30 panels linked via a bus cable. Bus cable signals are converted to a SNMP/Ethernet protocol, and sent to the management console. The RFID component monitors all ports and transmits information to the Network Manager. LEDs provide visual support during the patching process, signaling unwanted changes.

### CU Panel

- 24-port copper Termination panel set (available in Category 6/Category 6A and UTP/STP)
- 24-port copper Coupler panel set (available in Category 6/Category 6A and UTP/STP)
- Upgradable with LED RFID component

### FO Panel

- 48-port termination/splice panel set (with 24x duplex LC or SC in OS2, OM3 or OM4, including splicing cassette and pigtail set)
- 48-port MPO panel set (with 24x duplex LC or SC in OS2, OM3 or OM4, including MPO/LC or MPO/SC assembly set)
- Upgradable with LED RFID component

### Modular Cords

- Belden PatchPro® CU Modular Cord features RJ45 patch cord with RFID transponder on both ends for Category 6 U/UTP and S/FTP and Category 6A S/FTP
- Belden PatchPro® FO Modular Cord features duplex LC or SC patch cords with RFID transponder on both ends for OS2, OM3 or OM4

All Belden PatchPro® hardware complies with international standards for both Category 6 and Category 6A cabling, as well as for OFC.

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### Category 6/Category 6A

- Supports current and future Category 6 and 6A applications, such as 10GBASE-T (10 Gigabit Ethernet), 1000BASE-T (Gigabit Ethernet), 100BASE-T, 10BASE-T, FDDI and ATM
- Meets international standard ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- Meets European standard EN 50173-1 (2002) and EN 50173-1 Amendment 1 (2009)



Belden  
PatchPro®  
CU Modular Cord

*These images are 3D replicas of the original Modular Cords and may therefore differ slightly from the original product.*

### OFC

- Supports current and future optical fiber applications, such as 10G Ethernet and FDDI
- Meets international standards ISO/IEC 11801 2nd edition (2002) and ISO/IEC 11801 Amendment 2 (2010)
- GR-326-CORE for OFC jumper



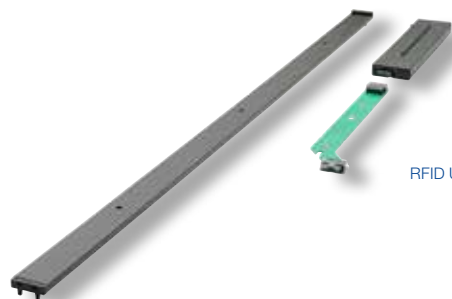
Belden PatchPro® FO Panel



Belden  
PatchPro®  
FO Modular Cord



Belden PatchPro® CU Panel

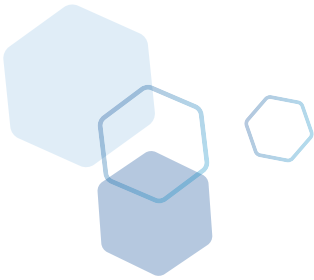


RFID Upgrade Kit



Network Manager

## Belden PatchPro® Software



### PatchPro®I

This key PatchPro®Infrastructure DCIM/AIM solution works with PatchPro® hardware to achieve transparency and accuracy in complex, demanding environments. Adapting to any environment – small businesses, large enterprises or sophisticated data centers – PatchPro®I modular architecture allows you to license only the components you need. Licensing is based on concurrent users, allowing you to install the software on as many workstations as you like – and allows you to grow in the future. It can also be adapted to your specific requirements without programming or expensive consulting.

With PatchPro®I, you can:

- Monitor vital systems for early recognition of potential bottlenecks, such as hotspots, excessive power usage and other critical conditions that could impact business continuity
- Minimize the effort required to prepare for assessments, delivering data and documents to auditors for a fast signoff
- Extract business-critical, real-time data from your network and display it in tables, charts or combined dashboards
- Make sure existing data center capacity is utilized before investing in an expansion
- Support any topology (star, ring, bus or mashed network structures) or any voltage (low-, medium- or high-voltage [230 V, 400 V, 500 V])
- Integrate air conditioning, alerting, fire and intrusion detection, facility management and IT server monitoring systems

PatchPro®I can be extended to cover your entire facility – not just the data center – with its space and inventory management, end-to-end connections to workspaces and maintenance management for all building technology.



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## Comprehensive Software Toolbox

### Component Library

A library features graphics and symbols of devices and components from the most common hardware manufacturers, with generic graphics for others.

### RackView

RackView is the main planning, documentation and task management tool for SoftPro®. It displays IT room and data center floorplans, as well as the components in the racks.



### Monitoring, Reporting and Analytics

Real-time data and status updates can be extracted from devices and systems via standard interfaces like SNMP, or using our API to create customized integration. The reporting tool already provides several out-of-the-box reports that can be modified to your needs; new reports can easily be created.

Define floorplan regions or rack views for an overview of the state of your data center with just the glimpse of an eye.

## Helpful Modules

### PatchPro® I Facility Manager

From integrated reporting to move management tools, this module offers several components to help facility managers make the most of their space, time, staff, and resources:

- Strategic planning (space requirements, staff planning)
- Internal management (cost calculation, remodeling)
- Budget estimates (planned vs. actual cost comparisons)
- Calculation of cost (cost accounting, depreciation)
- Staff (phone directories, employee management, security)
- Inventory/assets (planning, procurement, asset management)
- Maintenance (cleaning schedules, waste removal)
- Alternatives (leasing, purchasing, rental)
- Communications (IT configuration, network management)
- Realization (room data, furnishings, detail drawings)

### PatchPro® I Connecting Manager

This powerful information system combines the geographical corresponding structure of a building drawing with the logic of a database. By visualizing and documenting the current environment, Connecting Manager can analyze available resources and evaluate possible system expansion plans. Efficiently increase network security and availability through:

- Higher availability
- Professional planning
- Reduced downtime
- Reduced operating costs by up to 50%
- Reduction of spare parts
- Resource analysis
- Transparent data

### InternetServer

Retrieve all your information and data from PatchPro® I Facility Manager and Connecting Manager at any time – at any place in the world – just a click away. InternetServer stores your data online without the need for software installation, permitting remote access to data about your premises, sites, buildings, floors, rooms, inventory, etc.



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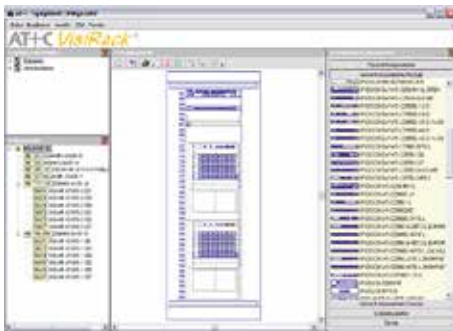
### RackView

This module supports configuration and deployment of racks and cabinets.

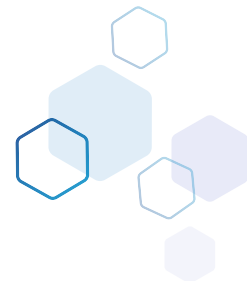
View all sites, buildings and rooms with available racks and cabinets, and drag-and-drop selected racks to connect devices to each other. Selecting an object displays all of the object's associated information, such as serial numbers, vendors, configuration, etc.

### PatchPro Manager

Create connections between devices by cable or direct connectors (from device to device).



Belden's experienced support staff is available during regular business hours to assist and support you as you use hardware and software as part of the PatchPro® Intelligent Patching Solution. We're here to make your project successful. Contact us today!



## Belden PatchPro® System

Description	Part Number
<b>PatchPro® Hardware</b>	
<b>Active Hardware</b>	
1U Network Manager with display	PPIRRC
0U Network Manager without display	PPIRRS
Rack Identification Lamp (Red)	PPRIL
<b>Upgrade Hardware</b>	
Copper Panel Upgrade Kit	PPCUUK
Fiber Panel LC/DX Upgrade Kit	PPFOUK
Fiber Panel SC/DX Upgrade Kit	PPFSUK
<b>Hardware Accessories</b>	
Bus cable 25m	PPACAB
Bus connector 1	PPACON
Bus connector 2	PPACOS
Bus termination	PPATER
Crimping tool	PPACRI



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Description	Part Number
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## PatchPro® Connectivity

### Copper Connectivity Termination Patch Panels

PatchPro 24-port UTP Cat6A iPLM Ready Panel	PPC6AUR
PatchPro 24-port UTP Cat6 iPLM Ready Panel	PPC6UR
PatchPro 24-port STP Cat6A iPLM Ready Panel	PPC6ASR
PatchPro 24-port STP Cat6 iPLM Ready Panel	PPC6SR

### Copper Connectivity Coupler Patch Panels

PatchPro 24-port UTP Cat6A iPLM Ready Panel	PPC6AUC
PatchPro 24-port STP Cat6A iPLM Ready Panel	PPC6ASC

Includes all Connectivity, without RFID & Hardware

### Copper Connectivity RFID Patch Cords

RFID Patch Cords CAT6A S/FTP BLUE, T568A/B, 26AWG, LSNH	PPCPAF.060ZZ
RFID Patch Cords CAT6 S/FTP BLUE, T568A/B, 26AWG, LSNH	PPCP6F.060ZZ
RFID Patch Cords CAT6A UTP BLUE, T568A/B, 26AWG, LSNH	PPCPAU.060ZZ
RFID Patch Cords CAT6 UTP BLUE, T568A/B, 26AWG, LSNH	PPCP6U.060ZZ

replace ZZ with required length, increments of 01m up to 25m

### Copper Connectivity RFID Sensor Patch Cords

PatchPro RJ45 RFID PC, SENSOR FUNCTION, 1m	PPECSA.06001
PatchPro RJ45 RFID PC, SENSOR FUNCTION, 2m	PPECSA.06002
PatchPro RJ45 RFID PC, SENSOR FUNCTION, 3m	PPECSA.06003
PatchPro RJ45 RFID PC, SENSOR FUNCTION, 5m	PPECSA.06005

## Belden PatchPro® System *(continued)*

Description	Part Number
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### PatchPro® Connectivity

Fiber Connectivity MPO Patch Panels	
PatchPro 48-port LC/UPC-DX OS2 iPLM Ready MPO Panel Set	PPLSMPOR
PatchPro 48-port SC/UPC-DX OS2 iPLM Ready MPO Panel Set	PPSSMPOR
PatchPro 48-port LC/APC-DX OS2 iPLM Ready MPO Panel Set	PPLAMPOR
PatchPro 48-port SC/APC-DX OS2 iPLM Ready MPO Panel Set	PPSAMPOR
PatchPro 48-port LC OM3 iPLM Ready MPO Panel Set	PPL3MPOR
PatchPro 48-port SC OM3 iPLM Ready MPO Panel Set	PPS3MPOR
PatchPro 48-port LC OM4 iPLM Ready MPO Panel Set	PPL4MPOR
PatchPro 48-port SC OM4 iPLM Ready MPO Panel Set	PPS4MPOR
PatchPro 48-port LC/UPC-DX OS2 iPLM Ready MPO alternate Panel Set	PPLSMPOR-ALT
PatchPro 48-port SC/UPC-DX OS2 iPLM Ready MPO alternate Panel Set	PPSSMPOR-ALT
PatchPro 48-port LC/APC-DX OS2 iPLM Ready MPO alternate Panel Set	PPLAMPOR-ALT
PatchPro 48-port SC/APC-DX OS2 iPLM Ready MPO alternate Panel Set	PPSAMPOR-ALT
PatchPro 48-port LC OM3 iPLM Ready MPO alternate Panel Set	PPL3MPOR-ALT
PatchPro 48-port SC OM3 iPLM Ready MPO alternate Panel Set	PPS3MPOR-ALT
PatchPro 48-port LC OM4 iPLM Ready MPO alternate Panel Set	PPL4MPOR-ALT
PatchPro 48-port SC OM4 iPLM Ready MPO alternate Panel Set	PPS4MPOR-ALT



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Description	Part Number
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#### Fiber Connectivity Term/Splice Patch Panels

PatchPro 48-port LC/UPC-DX OS2 iPLM Ready Term/Splice Panel Set	PPLSTSR
PatchPro 48-port SC/UPC-DX OS2 iPLM Ready Term/Splice Panel Set	PPSSTSR
PatchPro 48-port LC/APC-DX OS2 iPLM Ready Term/Splice Panel Set	PPLATSR
PatchPro 48-port SC/APC-DX OS2 iPLM Ready Term/Splice Panel Set	PPSATSR
PatchPro 48-port LC OM3 iPLM Ready Term/Splice Panel Set	PPL3TSR
PatchPro 48-port SC OM3 iPLM Ready Term/Splice Panel Set	PPS3TSR
PatchPro 48-port LC OM4 iPLM Ready Term/Splice Panel Set	PPL4TSR
PatchPro 48-port SC OM4 iPLM Ready Term/Splice Panel Set	PPS4TSR

Includes all Connectivity, without RFID & Hardware

Add -H for half loaded panels after the part number(half loaded panels will come with 24 pigtails)

#### Fiber Connectivity RFID Patch Cords

RFID Patch Cords LC/UPC-DX OS2, LSNH	PPOPSL.OZZ
RFID Patch Cords LC/APC-DX OS2, LSNH	PPOPAL.OZZ
RFID Patch Cords LC/PC-DX OM3, LSNH	PPOP3L.OZZ
RFID Patch Cords LC/PC-DX OM4, LSNH	PPOP4L.OZZ
RFID Patch Cords SC/UPC-DX OS2, LSNH	PPOPSS.OZZ
RFID Patch Cords SC/APC-DX OS2, LSNH	PPOPAS.OZZ
RFID Patch Cords SC/PC-DX OM3, LSNH	PPOP3S.OZZ
RFID Patch Cords SC/PC-DX OM4, LSNH	PPOP4S.OZZ

replace ZZ with required length, increments of 1m up to 25m

#### Fiber Connectivity RFID Sensor Patch Cords

PatchPro FO LC/LCdx PC, OM4, RFID, SENSOR FUNCTION, 1m	PPEOSE.001
PatchPro FO LC/LCdx PC, OM4, RFID, SENSOR FUNCTION, 2m	PPEOSE.002
PatchPro FO LC/LCdx PC, OM4, RFID, SENSOR FUNCTION, 3m	PPEOSE.003
PatchPro FO LC/LCdx PC, OM4, RFID, SENSOR FUNCTION, 4m	PPEOSE.004

## Belden PatchPro® System *(continued)*

Description	Part Number
<b>PatchPro® Infrastructure DCIM/AIM Software</b>	
<b>Add-on Modules non-concurrent license</b>	
RVM RackView Manager	PP-RV-SF
RCM RackCenter Manager (license for 2 years and named user!)	PP-RC-SF
IGS Internet Graphic Server (Incl. 5 client license)	PP-IGS-SF
<b>PatchPro®I - Connectivity and Facility Manager (Concurrent License Model)</b>	
PatchPro®I - Enterprise Manager CADVANCE	PP-ENT-CM-CV-ZZ
PatchPro®I - Professional Manager CADVANCE	PP-PRO-CM-CV-ZZ
PatchPro®I - Small Business Manager CADVANCE	PP-SB-CM-CV-ZZ
PatchPro®I - Enterprise Manager AutoCAD	PP-ENT-CM-AC-ZZ
PatchPro®I - Professional Manager AutoCAD	PP-PRO-CM-AC-ZZ
PatchPro®I - Small Business Manager AutoCAD	PP-SB-CM-AC-ZZ
replace ZZ with amount of licenses, example: PP-SB-CM-AC-01	
<b>Tools</b>	
SNMP-Interface	SNMP-INT
API Programming-Interface	PRGM-INT
WMI-Interface	WMI-INT
LDAP-Interface	LDAP-INT
Other tools are available on request	
<b>Services</b>	
Software-Service / Maintenance / Updates / Hotline (CV) - Year	PP-SMUH-CV
Software-Service / Maintenance / Updates / Hotline (AC) - Year	PP-SMUH-AC
Not including software updates of CAD-Systems & other 3 <sup>rd</sup> Party Software	
<b>Training on site (Other Training available on request)</b>	
Entering customer data Floorplan - Day	PP-FP-TR
Entering customer data IT - Day	PP-IT-TR
Entering customer data Facility Management - Day	PP-FM-TR
Installation of Software on customer server - Day	PP-INS-TR
Create userdefined Project structures DB / Consulting - Day	PP-CPBD
Excluding travel & accommodation expenses	

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## 10GX Pre-Terminated Cabling System

### **Pre-Term Made Easy™**

At the heart of Belden's 10GX Pre-Terminated Cabling System are two core components: 10GX Pre-Terminated Cable Assemblies and 10GX RJ45 Modular Couplers. Individually, these components offer superior reliability and performance. Together, they deliver the full potential of pre-terminated copper cabling solutions. The Belden solution is referred to as 'Pre-Term Made Easy' because it brings simplicity to the configuring and ordering process and it offers ease of installation through flexible 10GX Cable Assemblies and plug-and-play 10GX RJ45 Connectivity. Furthermore, with simple planning, fast delivery, up to 90% reduction in installation time and labor cost, bandwidth virtually no testing or troubleshooting required, Belden's 10GX Pre-Terminated Cabling System delivers the promise of pre-terminated cabling systems: dramatically reduced installation time, cost-savings, and the reliability and performance of factory terminations – all without compromises or trade-offs.

### **Ideal for Data Centers**

Belden understands that the ultimate goal in Data Center networks is to have zero downtime or 'extreme' network availability. In a risk-averse environment with very strict schedule constraints and budgets, demanding reliability and performance without compromise is a must. Belden's 10GX Pre-Terminated Cabling System delivers fast-deployment, with built-in reliability combined with guaranteed performance and headroom. Moreover, the system is fully supported under Belden's IBDN 10GX Certification Program including guaranteed bandwidth of 625MHz, total support for 10 Gb/s Ethernet, and Belden's 25-Year IBDN Product Warranty.



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### Pre-Term Made Easy

- Easy to configure: only a few standard components to choose from to build an entire system
- Easy to order: simplified ordering process eliminates errors
- Easy to install: small and flexible cable assemblies combined with

### Reliability and Performance - No Compromise

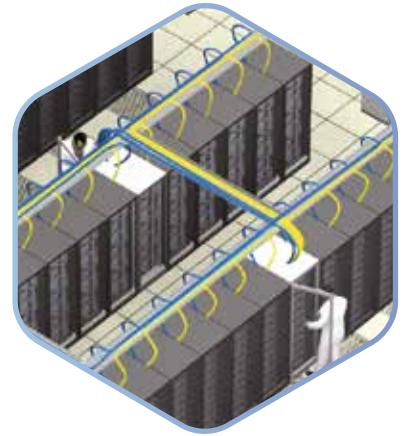
- Built-in reliability with ultra-robust assemblies and connectors
- Guaranteed Category 6A performance with test results supplied with each assembly
- Guaranteed headroom up to 625 MHz
- Guaranteed headroom in channels as short as 5 ft (1.6 m)
- Fully supported under Belden's IBDN 10GX Certification Program

### Save Time and Money

- Reduced planning time with simplified selection of modular components
- Fast delivery to meet short project turn-around deadlines
- Up to 90% reduction in installation time and labor costs
- Virtually no testing or troubleshooting required

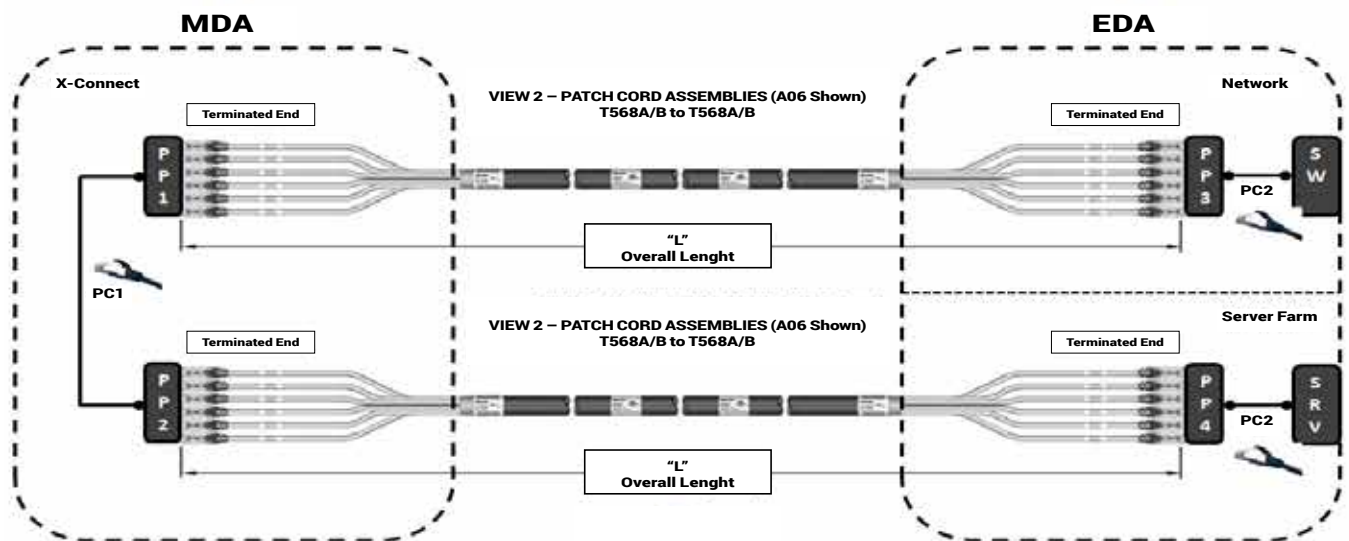
### Make it "Green"

- Simplicity of the components means energy and waste savings throughout the manufacturing and supply chain process
- Small and flexible cable assembly design mean less cable to be deployed and no unnecessary slack
- Plug-and-play RJ45 connectivity components significantly reduce installation time and labor costs with almost no product waste during installation and operation
- Up to 50% material reduction in Data Center cabling topology
- All system components can be easily re-deployed and reused



# Belden PatchPro® 10GX

## PatchPro® 10GX Pre-Term RFID Intelligent 'Ready' Patching Cabling System



10GX  
Pre-term  
Cable Assemblies



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Description	Part Number
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**Patch Panels (PP1, PP2, PP3, PP4)**  
**PatchPro® 10GX Connectivity**

**10GX Copper Connectivity Coupler Patch Panels**

PatchPro 24-port UTP Cat6A iPLM Ready Panel	PPC6AUC
---	---------

Includes all Connectivity, without RFID & Hardware

**10GX Pre-Terminated Cable Assembly, Bonded-Pair, 4-Pair, 23 AWG Solid, T568A/B-T568A, 6 Cables**

LSZH, Black	CA241000xxA06
LSZH, White	CA241090xxA06
LSZH, Blue	CA241060xxA06
LSZH, Grey	CA241080xxA06

Use xx to specify length in meter - 03-15 mt. in increments of mt. - 15-80 mt. in increments of 5 mt.

**RFID Patch Cords (PC1)**  
**RFID Sensor Patch Cords (PC2)**

**Copper Connectivity RFID Patch Cords**

RFID Patch Cords BLUE, T568A/B, LSNH, 1m	PPCPAF.06001
RFID Patch Cords BLUE, T568A/B, LSNH, 2m	PPCPAF.06002
RFID Patch Cords BLUE, T568A/B, LSNH, 3m	PPCPAF.06003
RFID Patch Cords BLUE, T568A/B, LSNH, 5m	PPCPAF.06005

**Copper Connectivity RFID Sensor Patch Cords**

RFID Sensor Patch Cords BLACK, T568A/B, LSNH, 1m	PPECSPA.06001
RFID Sensor Patch Cords BLACK, T568A/B, LSNH, 2m	PPECSPA.06002
RFID Sensor Patch Cords BLACK, T568A/B, LSNH, 3m	PPECSPA.06003
RFID Sensor Patch Cords BLACK, T568A/B, LSNH, 5m	PPECSPA.06005

## Pre-Terminated Cabling System

### Pre-Term Made Easy™

At the heart of Belden's FX Pre-Terminated Cabling System are two core components: FX Pre-Terminated Cable Assemblies and MPO patch panels. Individually, these components offer superior reliability and performance. Together, they deliver the full potential of pre-terminated fiber cabling solutions. The Belden solution is referred to as 'Pre-Term Made Easy' because it brings simplicity to the configuring and ordering process and it offers ease of installation through flexible FX Cable Assemblies and Connectivity. Furthermore, with simple planning, fast delivery, up to 90% reduction in installation time and labor cost. Belden's FX Pre-Terminated Cabling System delivers the promise of pre-terminated cabling systems: dramatically reduced installation time, cost-savings, and the reliability and performance of factory terminations – all without compromises or trade-offs.

### Ideal for Data Centers

Belden understands that the ultimate goal in Data Center networks is to have zero downtime or 'extreme' network availability. In a risk-averse environment with very strict schedule constraints and budgets, demanding reliability and performance without compromise is a must. Belden's FX Pre-Terminated Cabling System delivers fast-deployment, with built-in reliability combined with guaranteed performance. Moreover, the system is fully supported under Belden's IBDN FX Certification Program including Belden's 25-Year IBDN Product Warranty.



MPO Trunk  
Assembly,  
MPO-12(F-F), OM4, Type-B, 25m



Belden  
PatchPro®  
FO Modular Cord



Belden PatchPro® FO Panel

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### Pre-Term Made Easy

- Easy to configure: only a few standard components to choose from to build an entire system
- Easy to order: simplified ordering process eliminates errors
- Easy to install: small and flexible cable assemblies combined with

### Reliability and Performance - No Compromise

- Built-in reliable assemblies and connectivity
- Fully supported under Belden's IBDN FX Certification Program

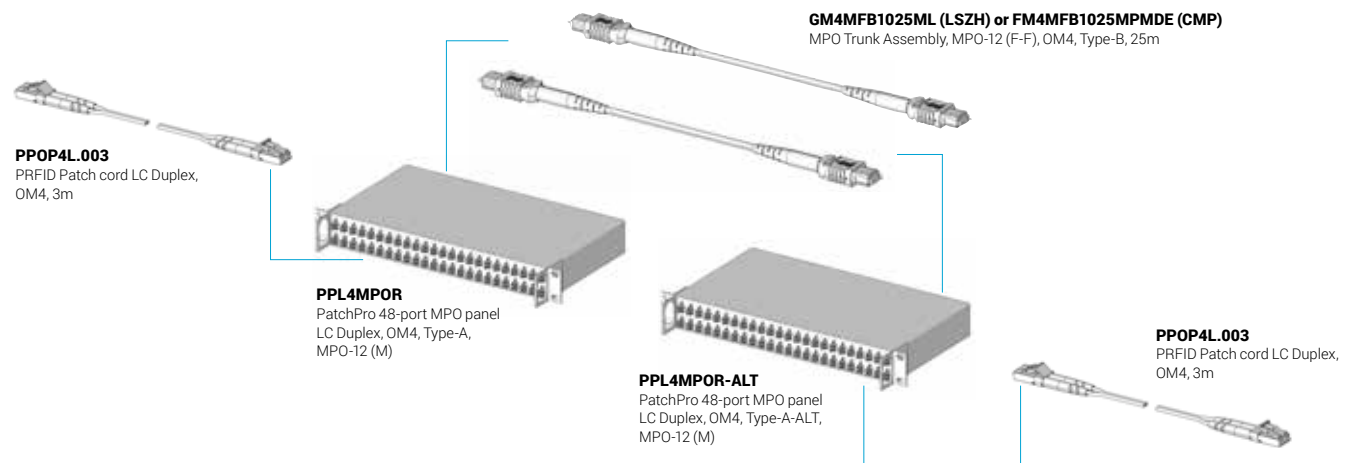
### Save Time and Money

- Reduced planning time with simplified selection of modular components
- Fast delivery to meet short project turn-around deadlines
- Up to 90% reduction in installation time and labor costs

### Make it "Green"

- Simplicity of the components means energy and waste savings throughout the manufacturing and supply chain process
- Small and flexible cable assembly design mean less cable to be deployed and no unnecessary slack
- The connectivity components significantly reduce installation time and labor costs with almost no product waste during installation and operation
- Up to 50% material reduction in Data Center cabling topology
- Pre-term Assembly Trunk cables can be easily and reused for next generation migration

### Example:



## GLOBAL LOCATIONS

For more information, please visit us at:  
[www.beldensolutions.com](http://www.beldensolutions.com)



**Be certain  
you stay  
in touch.**

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